

Amendment To The Claims

1. (currently amended) A bacterial strain for production of a fermentation product selected from the group consisting of antibiotics, organic acids, amino acids, proteins, vitamins, polyhydroxyalkanoates, and polysaccharides, wherein the bacterial strain is genetically modified to express a heterologous nuclease gene ~~or mutated to improve the activity of a homologous or heterologous nuclease gene~~, wherein the nuclease gene product is secreted into the periplasmic space ~~or culture medium and released when the bacteria is lyzed by osmotic shock in an amount effective to degrade at least 95% of all of the nucleic acid released following lysis of the cells in less than 24 hours and reduce the viscosity of a cell lysate in a bacterial cell culture having a density of at least 50 g/l so that recovery of the product is enhanced.~~
2. (currently amended) The bacterial strain of claim 1 wherein the nuclease gene product is released in an amount effective to degrade at least 95% of all of the nucleic acid released following lysis of the cells in less than 24 hours and reduce the viscosity of a cell lysate in a bacterial cell culture having a density of at least 50 g/l so that recovery of the product is enhanced ~~which is capable of growth to cell densities of at least 50g/l.~~
3. (original) The bacterial strain of claim 2 which produces a polyhydroxyalkanoate to levels of at least 40% of its dry cell weight.
4. (previously presented) The bacterial strain of claim 1 for use in an aqueous process to manufacture poly(3-hydroxyalkanoate) granule suspension which is essentially free of nucleic acids.

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5. (original) The bacterial strain of claim 1 for use in a process for making polysaccharides selected from the group consisting of xanthan gum, alginates, gellan gum, zooglan, hyaluronic acid, and microbial cellulose.

6. (original) The bacterial strain of claim 1 wherein the nuclease gene is a heterologous gene obtained from an organism other than the bacterial strain.

7. (currently amended) A bacterial strain for production of a fermentation product selected from the group consisting of antibiotics, organic acids, amino acids, proteins, vitamins, polyhydroxyalkanoates, and polysaccharides, wherein the bacterial strain is genetically modified to express a heterologous nuclease gene, wherein the nuclease gene product is secreted into the periplasmic space and released when the bacteria is lysed by osmotic shock, wherein ~~The bacterial strain of claim 1 in which~~ the nuclease gene is integrated into a host strain selected from the group consisting of *Ralstonia eutropha*, *Methylobacterium organophilum*, *Methylobacterium extorquens*, *Aeromonas caviae*, *Azotobacter vinelandii*, *Alcaligenes latus*, *Pseudomonas oleovorans*, *Pseudomonas fluorescens*, *Pseudomonas putida*, *Pseudomonas aeruginosa*, *Pseudomonas acidophila*, *Pseudomonas resinovorans*, *Escherichia coli*, and *Klebsiella*.

8. (original) The bacterial strain of claim 1 wherein the nuclease is expressed in an amount effective to degrade at least 95% of all of the nucleic acid released following lysis of the cells in less than 24 hours.

9-10. (cancelled)

11. (withdrawn – currently amended) A fermentation process comprising

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adding to a growth medium a bacterial strain for production of a fermentation product selected from the group consisting of antibiotics, organic acids, amino acids, proteins, vitamins, polyhydroxyalkanoates, and polysaccharides, wherein the bacterial strain is genetically modified to express a heterologous nuclease gene ~~or mutated to improve the activity of a homologous or heterologous nuclease gene~~, wherein the nuclease gene product is secreted into the periplasmic space ~~or culture medium~~ and released when the bacteria is lysed by osmotic shock in an amount effective to degrade at least 95% of all of the nucleic acid released following lysis of the cells in less than 24 hours and reduce the viscosity of a cell lysate in a bacterial cell culture having a density of at least 50 g/l so that recovery of the product is enhanced.

12. (withdrawn, currently amended) The method of claim 11, wherein the bacterial strain is grown to cell densities of at least 50 g/l, and the nuclease gene product is released in an amount effective to degrade at least 95% of all of the nucleic acid released following lysis of the cells in less than 24 hours and reduce the viscosity of a cell lysate in a bacterial cell culture having a density of at least 50 g/l so that recovery of the product is enhanced.

13. (previously presented) The bacterial strain of claim 1 wherein the bacterial strain produces a polyhydroxyalkanoate.

14. (withdrawn, currently amended) The method of claim ~~13~~ 12 further comprising growing the bacterial strain to produce levels of at least 40% of its dry cell weight.

15. (withdrawn, original) The method of claim 11 further comprising lysing the cells.

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16. (withdrawn, original) The method of claim 14 further comprising using an aqueous process to manufacture a poly(3-hydroxyalkanoates) granule suspension which is essentially free of nucleic acids.

17. (withdrawn, original) The method of claim 11 used in a process for making polysaccharides selected from the group consisting of xanthan gum, alginates, gellan gum, zooglan, hyaluronic acid, and microbial cellulose.

18. (previously presented) The bacterial strain of claim 1 wherein the fermentation product is a protein and the protein is selected from the group consisting of enzymes, growth factors, and cytokines.

19. (withdrawn, currently amended) The A fermentation process comprising adding to a growth medium a bacterial strain for production of a fermentation product selected from the group consisting of antibiotics, organic acids, amino acids, proteins, vitamins, polyhydroxyalkanoates, and polysaccharides, wherein the bacterial strain is genetically modified to express a heterologous nuclease gene, wherein the nuclease gene product is secreted into the periplasmic space and released when the bacteria is lyzed by osmotic shock, and
~~method of claim 11~~ wherein the nuclease gene is integrated into a host strain selected from the group consisting of *Ralstonia eutropha*, *Methylobacterium organophilum*, *Methylobacterium extorquens*, *Aeromonas caviae*, *Azotobacter vinelandii*, *Alcaligenes latus*, *Pseudomonas oleovorans*, *Pseudomonas fluorescens*, *Pseudomonas putida*, *Pseudomonas aeruginosa*, *Pseudomonas acidophila*, *Pseudomonas resinovorans*, *Escherichia coli*, and *Klebsiella*.

20. (cancelled)

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21. (withdrawn, currently amended) The method of claim 11 wherein the strain expresses nuclease into the periplasmic space ~~growth medium~~ in an amount effective to degrade at least 95% of all of the nucleic acid released following lysis of cells ~~in the growth medium~~ in less than 24 hours.

22-23. (cancelled)